

Applicants: Nathan Ellis, James German, and Joanna Groden
Serial No.: 09/753,143
Filed: January 2, 2001
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REMARKS

Claims 11-12, 14-17, 19-20 and 86-93 were pending in the subject application. By this Amendment, applicants have canceled claim 11 without prejudice or disclaimer and amended claims 12, 14-16, and 86. Accordingly, upon entry of this Amendment, claims 12, 14-17, 19-20 and 86-93 will be pending and under examination.

Applicants maintain that the amendments to the claims do not raise an issue of new matter. Claim 86 has been amended to be an independent claim and to recite that the subject is a "human" subject. Support for the amendments to claim 86 can be found at least in canceled claim 11. Claims 12 and 14-16 have been amended to depend from claim 86 instead of from canceled claim 11.

The specification has been amended to correct the spelling of "Gyapay", to provide a more legible version of Table 1, and to clarify footnote "g" in Table 1. Support for the amendment to the footnote can be found in the body of Table 1. Applicants maintain that the amendments to the specification do not raise an issue of new matter.

Entry of the Amendments is respectfully requested.

Objections to the Specification

The specification was objected to due to an error in the spelling of "Gyapay", to the legibility of portions of Table 1, and to the clarity of footnote "g" in Table 1.

The specification has been amended to correct the error in the spelling of "Gyapay", to provide a more legible version of Table 1, and to clarify footnote "g" in Table 1. Accordingly, reconsideration and withdrawal of the objections are respectfully requested.

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Rejections under 35 U.S.C. §112, Second Paragraph

The previous rejection of claims 11, 12, 14-17 and 19-20 under 35 U.S.C. §112, second paragraph is maintained; the previous rejection of claims 86-93 is withdrawn.

Claim 11 has hereinabove been canceled, thereby rendering this rejection moot. Claims 12, 14-17 and 19-20 have been amended to depend from claim 86.

Claims 11, 12, 14-17, 19-20 and 86-93 are rejected as indefinite for not reciting that the subject is a "human" subject.

Claim 11 has been canceled, and claim 86 has been amended to specify that the subject is a human subject.

In view of the amendments made hereinabove, reconsideration and withdrawal of these grounds of rejection are respectfully requested.

Rejections under 35 U.S.C. §112, First Paragraph

The previous rejection of claims 11, 12, 14-17 and 19-20 is maintained under the written description and enablement requirements of 35 U.S.C. §112, first paragraph; the previous rejection of claims 86-93 is withdrawn.

Claim 11 has hereinabove been canceled, thereby rendering this rejection moot. Claims 12, 14-17 and 19-20 have been amended to depend from claim 86.

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CONCLUSIONS

In view of the amendments and remarks made hereinabove, applicants respectfully request reconsideration and withdrawal of the objections and rejections set forth in the April 2, 2004 Office Action and earnestly solicit passage of the pending claims to allowance. If there are any minor, remaining matters that prevent allowance of the subject application, applicants request that the Examiner telephone the attorneys indicated below.

No fee is deemed necessary in connection with the filing of this Amendment. However, if any fee is required to preserve the pendency of the subject application, authorization is hereby given to charge the amount of any such fee to Deposit Account No. 01-1785.

Respectfully submitted,
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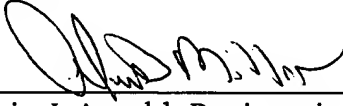
By: 
Craig J. Arnold, Registration No. 34,287
Alan D. Miller, Registration No. 42, 889

Table 1. Mutations identified in the candidate gene in persons with Bloom's syndrome.

Person	Mutation				
	Ancestry	Cell line	Position ^b (bp)	Alteration ^c	Zygosity at <i>BLMD</i>
97(AsOk)	Japanese	HG1926	631	3-bp del ^f	Homo
					Nonsense
					S→stop
					185
112(NaSch)	German	HG2510	888	A→T	Hetero
					Nonsense
					K→stop
					271
93(YoYa)	Japanese	HG1626	1610	1 bp ins	Homo
					Frameshift ^g
					515
139(VIKre)	American/European	HG2231	2089	A→G	Hetero
					Missense
					Q→R ^g
					1417
15(MaRo)	Ashkenazi Jewish	HG1514	2281	6 bp del/ 7 bp ins	Homo
					Frameshift ^f
					739
42(RaFr)	Ashkenazi Jewish	HG2522	2281	6 bp del/ 7 bp ins	Homo
					Frameshift ^f
					739
107(MyAsa)	Ashkenazi Jewish	HG2654	2281	6 bp del/ 7 bp ins	Homo
					Frameshift ^f
					739
NR2(CrSpe)	Ashkenazi Jewish	HG2727	2281	6 bp del/ 7 bp ins	Homo
					Frameshift ^f
					739
92(VaBi)	Italian	HG1584	2596	T→C	Homo
					Missense
					I→T ^j
					1417
113(DaDem)	Italian	HG1624	3238	G→C	Homo
					Missense
					C→Sk
					1417

^a Bloom's Syndrome Registry designations. Three unrelated persons with BS were examined in whom mutations have yet to be detected: 61(DoHo), in HG2122; 30(MaKa), in HG1987; 140(DrKas), in HG1972.

^b The nucleotide positions are as identified in the H1-5' sequence (Fig. 2).

^c Del, deletion; ins, insertion.

^d Homo, homozygous; hetero, heterozygous.

^e Number of amino acids starting from the first in-frame ATG found in the H1-5' sequence (Fig. 2).

- f The deletion of CAA at nucleotide positions 631-633 results in a stop codon at amino acid position 186 (Fig. 2).
- g The insertion of an A bp causes the insertion of a novel codon for K after amino acid 514 position (taken from the H1-5' sequence, Fig. 2), and after this codon there is a stop codon.
- h At amino acid position 672.
- i The deletion of ATCTGA and insertion of TAGATTC causes the insertion of the novel condons for LDSR after amino acid position 736, and after these condons there is a stop codon.
- j At amino acid position 843.
- k At amino acid position 1055